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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of	)	
	)	
PUBLIC UTILITIES COMMISSION	)	DOCKET NO. 2021-0024
	)	
Opening a Proceeding to Review Hawaiian Electric's Interconnection Process and Transition Plans for Retirement of Fossil Fuel Power Plants.	)	

DIVISION OF CONSUMER ADVOCACY'S COMMENTS ON HAWAIIAN ELECTRIC'S INITIAL STATUS UPDATE FILED ON MARCH 5, 2021.

Pursuant to the Hawaii Public Utilities Commission's ("Commission") Order No. 37624 Opening the Docket, filed on February 11, 2021 ("Order No. 37624"), the Division of Consumer Advocacy ("Consumer Advocate") provides comments on the Hawaiian Electric Companies'[1] Interconnection Process and Transition Plans for Retirement of Fossil Fuel Power Plants Initial Status Update, filed on March 5, 2021 ("Initial Status Update").

[1] The "Hawaiian Electric Companies" or the "Companies" are comprised of Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited.

I. BRIEF BACKGROUND.

On February 11, 2021, the Commission filed Order No. 37624 opening the docket to review the status and interconnection progress of the various Hawaiian Electric Companies' renewable projects and the AES Hawaii Plant ("AES Plant") and Kahului Power Plant ("Kahului Plant") Transition Plans, and other fossil fuel power plant transition plans, as needed.

On March 5, 2021, the Companies filed their Initial Status Update.

On March 11, 2021, the Commission filed Order No. 37674 Addressing Confidential Redactions in Hawaiian Electric's Initial Status Update, Filed on March 5, 2021.

On March 16, 2021, the Commission conducted a status conference.

On March 23, 2021, the presentations by Hawaii Natural Energy Institute and the Companies from the March 16, 2021 status conference were filed.

On March 24, 2021, the Commission filed Order No. 37698 Outlining Next Steps Following the March 16, 2021 Status Conference.

II. DISCUSSION.

As part of its comments, the Consumer Advocate would like to stress the importance of ensuring that customers' needs are considered and that the importance of ensuring reliable service at affordable rates cannot be forgotten. While we may not have the weather conditions that existed a few weeks ago on the mainland, it is important to be mindful of the impact of electricity being unavailable to consumers for any extended period of time. While it might be argued that the weather conditions that caused the rolling

blackouts in Texas were unforeseen, there is also information that suggests that Texas already knew what might happen during that type of weather event due to a similar event in 2011 and, yet, it looks like the lessons learned were not adequately acted upon.

In this instance, the Consumer Advocate notes that the possible reliability issue is one that is not an unforeseen or catastrophic event – it is the result of a planning decision that has been known for a long time. The Consumer Advocate notes that we should also take advantage of our own lessons learned with respect to the planned termination of the AES Plant, which is a coal burning facility, and the events on Hawaii island throughout the 1980s and 1990s that led to numerous outages and rolling blackouts resulting. As a result of the system issues on Hawaii island related to inadequacy of supply and concerns that related to inadequate contingency planning, there were various regulatory actions such as Docket Nos. 7049 and 96-0029. In those proceedings, concerns were raised with respect to whether adequate contingency planning had occurred to consider known and unknown events to address and eliminate reliability issues.

The Consumer Advocate stresses that we should be heeding those past lessons and not be satisfied with the idea that, while the margins are slim in the fall of 2022 and 2023, if the proposed Kapolei Energy Storage project ("KES") is timely installed and with deferred maintenance, reliability on Oahu should be adequately maintained. Reliable electric service is critically important on all of the islands and, given the number of customers on Oahu and Oahu's economic importance to the state, there is a pronounced need for adequate planning and contingency planning for all of Oahu's customers. To that end, the Consumer Advocate is offering the following comments as it relates to the identified items in Hawaiian Electric's Initial Status Update.

In general, as shown and discussed on pages 4 and 5 of the Initial Status Update, the Company anticipates additional 249.5 MW and 284 MW of nameplate capacity in 2022 and 2023, respectively.[2] Of the 135 MW of stand-alone storage, the Company makes clear that the "135 MW [Kapolei Energy Storage ("KES")] project is targeted to replace the power capacity that AES represents..." and that without the AES coal facility but with KES, Hawaiian Electric's analysis is that there would be sufficient reserve margin to meet the capacity planning criteria. It is the Consumer Advocate's understanding of the recent analysis conducted by the HNEI also indicates reserve margin shortfalls in 2022 and 2023 and that KES was identified as part of the additional mitigation measures.

At present, the Consumer Advocate is communicating with HNEI to get a better understanding of their analysis and does not have any information to dispute the conclusion that, with KES, even without the addition of any of the delayed Stage 1 projects resulting from Docket No. 2017-0352, sufficient reserve would exist. That being said, as stated earlier, the importance of reliable electricity service cannot be understated. Further, the reserve margin is maintained if KES goes online as expected and with maintenance deferral for existing units. The Consumer Advocate notes that there is no certainty that KES will go online as scheduled in June of 2022[3] and, even if it does, given the magnitude of KES' anticipated contribution to capacity and the need for

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2 Of the 249.5 MW of capacity expected in 2022, 27 MW was from grid services, 135 MW was from stand-alone storage, and 87.5 MW is storage tied to photovoltaic systems. Of the 284 MW of capacity expected in 2023, all of it is from storage tied to photovoltaic systems.

3 In the Initial Status Update, the Company recognizes that, if KES does not go online in 2022, the Company's assurances regarding sufficient capacity would be problematic. At that point, the Company appears to be assuming – or hoping – that the delayed Stage 1 projects will be in service.

Hawaiian Electric to better understand the operation of the unit in conjunction with its system, the Consumer Advocate contends that contingency planning would be prudent to offset potential risks associated with delayed installation – if approved by the Commission in Docket No. 2020-0136 – as well as unknown operating issues that may occur.[4] Using past examples of these unknown operating issues, these are also lessons learned that, even after the initial testing and "shakedown" of a new resource, adequate contingency planning should be considered. While the KES is planned to be in service in June 2022 to give Hawaiian Electric the opportunity to test and shakedown the unit, the uncertainty of the timing as well as integrating the KES suggests that contingencies should be in place to better mitigate potential reliability issues.

In addition, the Consumer Advocate has some concerns with the reliance of deferral of maintenance to help address the anticipated adequacy concerns in 2022 and, possibly 2023. As the Hawaiian Electric Companies have stressed multiple times in numerous applications involving the reasonableness of maintenance of units and the associated costs, adequate and timely maintenance of generating units are important to avoid even greater costs or reliability issues. Given that there are adequacy concerns in both 2022 and 2023, the Consumer Advocate stresses the need for improved contingency plans to avoid the situation where, in 2023, due to the deferral of maintenance in 2022, Oahu may be faced with reliability issues that could have been mitigated with adequate contingency planning. The Consumer Advocate also notes that Hawaiian Electric

[4] The Consumer Advocate notes the unforeseen operating issues, which included battery storage issues, that occurred on Kauai that led to island wide outages and rolling blackouts in the past few years.

recognizes the age of certain units[5] and, thus, the Consumer Advocate is concerned with the prospect of the apparent importance of deferred maintenance and the greater reliance on aging units in Hawaiian Electric's contingency plans.

A. THERE IS A DISTINCT NEED FOR IMPROVED CONTINGENCY PLANNING.

In Hawaiian Electric's Initial Status Update, it identifies its contingency plans on pages 5 and 6. In brief, the plans are: 1) expand the procurement of grid services through an RFP; 2) install a 20 MW, 4-hour battery tied to Hawaiian Electric's West Loch PV facility; 3) lease 20 MW of batteries to be tied to the West Loch PV facility.

As it relates to Hawaiian Electric's proposals, the Consumer Advocate first notes that the second and third plans appear to be mutually exclusive, where either a 20 MW battery system would be acquired and installed to be tied to the West Loch PV facility or that 20 MW of battery storage capacity would be leased and tied to the West Loch PV facility. Putting aside the past analysis that was done at the Commission's request to evaluate whether installing a battery storage system on a post hoc basis to the West Loch PV project was cost effective, this measure should be explored as it relates to the time required under either option to better understand this proposal. The Consumer Advocate also supports the notion of exploring the feasibility, timing, and costs associated with procuring additional grid services.

The Consumer Advocate contends, however, that greater importance should be imposed on the contingency planning to reduce, as much as possible, the risk of further

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5 See, e.g., Hawaiian Electric Initial Update, at 3.

delays in any of the approved projects as well as the yet unapproved KES. In addition, there should be recognition of the risks of real world events, such as unforced outages beyond the historical average used in the HNEI and Hawaiian Electric analyses. In addition, the ongoing pandemic has affected all customers and, while it is anticipated that full recovery may take years, there may be an unanticipated snap back of the economy that could lead to greater than forecasted loads. To that end, the Consumer Advocate contends that further efforts should be put into the following: 1) implementing additional energy efficiency measures; 2) exploring expanding possible DER solutions; 3) exploring possible rate design solutions; 4) mobile generation and storage; and 5) as a last resort, updating load shedding schemes.

To a large degree, this discussion has significant overlaps with the recent discussion in Docket No. 2019-0323 responding to the Commission's March 19, 2021 letter asking parties to propose program designs for a 50 MW bring your own device ("BYOD") DER program. The Consumer Advocate formally proposes that the Commission should consider a portfolio approach to addressing both the contingency planning and the Commission's requested 50 MW of BYOD capacity that the Consumer Advocate understands to be a target capacity addition for addressing the adequacy of supply concerns. Thus, in general, the Consumer Advocate proposes that a certain capacity amount might be generally targeted for each of the portfolio components, but the exploration of each possible component should be with the mindset of scalability. Thus, if one measure can be implemented in a timely and hopefully

cost-effective manner,[6] that measure could be scaled up to possibly offset another measure (or measures) that might not be as timely or cost-effective. Given the experience where, in recent RFPs for grid services, RFPs for projects, etc., the targeted capacity amount was not met, the Consumer Advocate contends that the most prudent action is a portfolio approach instead of relying only on one form of capacity, such as adding storage or adding DER.

1. Energy Efficiency should be part of the contingency portfolio.

The Consumer Advocate suggests that Hawaii Energy should be engaged to determine whether there are existing energy efficiency programs that can be quickly expanded to bring about load reduction on a 24/7 basis but there should also be exploration of any energy efficiency measures that could provide dispatchable capacity and/or load shifting benefits. The cost effectiveness of energy efficiency has been widely acknowledged and, just as the standard advice to customers should be to explore energy efficiency first before exploring generating and storage investments, the Consumer Advocate contends that the same advice should apply here for Oahu's system. Depending on Hawaii Energy's response on the possible measures, the nature of the measures, the possible scope of measures (i.e., potential capacity), and timeliness of the

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6 Normally, the Consumer Advocate emphasizes the need for cost-effective solutions. In this instance, there seems to be a greater need for consideration of reliability and "keeping the lights on" but cost-effectiveness should not be ignored. Given the load and low-cost of AES Hawaii's contribution to Oahu's grid, it has been known that, any future solution that was not less than the levelized cost of operation for AES Hawaii, would increase customer bills. Furthermore, the potentially increased reliance on oil with volatile prices to cover AES Hawaii's contribution will increase customers' exposure to greater volatility in prices (as opposed to the relative cost control associated with the contract with AES Hawaii), which is inconsistent with Hawaii Revised Statutes Section 269-6.

measures, this could help scope the capacity that should be sought from the other possible solutions.

The exploration of energy efficiency solutions to address the contingency plans should include measures for all customers – commercial and residential. Given the timing of the need, it may become apparent that greater focus on commercial measures may be appropriate to obtain "quick hits" that reduce load, but it is important to explore all options at this point. Additional information may be useful to ensure that the proposed energy efficiency measures meet the system needs. For instance, designing measures to take off air conditioning load in the middle of the day may be useful and still helpful but it may not address the possible system need to reduce peak loads between the hours of 7 pm to 9 pm. Thus, while any number of measures may be proposed, it would still be helpful in the design of the measures to have the targeted impact or system results that are desirable.

2. The Commission's efforts to urge DER solutions should continue.

For the DER solutions, the Consumer Advocate believes that it would be reasonable to explore the additional capacity that may be possible through expansion of the BYOD approach but also believes that the PV Host / rooftop rental approach should be explored. As it relates to the rooftop rental approach, as informally discussed in the workshops in Docket No. 2019-0323, the Consumer Advocate believes that other variations beyond Hawaiian Electric's proposal should be explored to expedite the possible adoption of DER deployment. To explain, one of the long-time barriers to DER (and even for energy efficiency) deployment on rental properties is the split incentive,

where the landlord does not receive a direct benefit from the installation of such measures. The program should explore the potential impact on the property owner's acceptance of installing DER systems that provides compensation to the property owner. Such a program would likely encourage the property owner to participate in the program and provide the targeted capacity. Otherwise, the opportunity to obtain untapped rooftop space will be lost as well as the potential to better understand how a rooftop rental program could provide benefits not only to the system, but also to underserved customers.

As was discussed in a Docket No. 2019-0323 workshop, further exploration of the need for the targeted capacity coming from additional capacity that is added rather than leveraging existing capacity should be conducted to avoid possible unintended consequences. To explain, as the already existing capacity has been incorporated in load studies, seeking to create programs using that existing capacity may result in modifying the participating customers' net usage considered in those load studies so that there is no net capacity that is added. As such, ff programs shift existing capacity that are currently reducing the customers' bills to now be held available as part of the targeted 50 MW, the load for those customers will increase and this would result in a net zero capacity add to the targeted 50 MW. This does not seem to be a desirable outcome.

The Consumer Advocate also offers that the administration of these DER programs as it relates to system needs should be considered. Standing up programs that require an aggregator or an administrator as an interface between the Company and the DER systems should be quickly evaluated to determine whether such a "middleman" might increase the costs and timeliness of implementation. While it remains an issue to

be explored in Docket No. 2019-0323, the Consumer Advocate appreciates how the Commission's March 19th letter recognizes the need for a positive customer experience but the Consumer Advocate raises the question of whether, if these resources are to meet a critical need, the procured resources will be available when needed. Otherwise, there could be undesirable consequences when a certain capacity is acquired but, say, only 60% of the procured capacity might actually be available when needed.

3. Critical Peak Pricing Should Also Be Considered as a Timely and Possibly Cost-Effective Solution.

The Consumer Advocate also suggests that the potential roll out of a critical peak pricing design to customers with interval meters, especially commercial customers. The Consumer Advocate highlights commercial customers since these customers have meters that could facilitate time varying rates. The ability to quickly roll out the rate design, once established, could be used to better understand the potential load impact that this could make available in 2022 and 2023. If it is confirmed that a critical peak pricing program could be quickly rolled out, say, within the next four to five months, the experience gained in the remainder of 2021 and in 2022 could help inform how the program could be used after September 2022 and beyond. More generally, the impacts of rolling out advanced rate design, which would provide time-varying signals to customers regarding the relative costs of energy, should also be considered, as well as the development of advanced DER programs that provide targeted and time varying compensation for energy, capacity, and grid services and can also expand the market of current DER participants.

4. Mobile generation and Storage Should Be Vetted and Steps Taken to Allow Rapid Deployment If Necessary.

While not ideal, depending on the potential capacities identified for each of the other solutions, mobile generation and storage should be explored. The Consumer Advocate acknowledges that this idea is not ideal as it would not advance Hawaii's renewable energy efforts, however, the Consumer Advocate stresses the need to avoid outages or rolling blackouts. To that end, there should be planning to better evaluate the roll that mobile generation and storage might have to play in the second half of 2022 through 2023 and planning steps should be taken as soon as practical. Recognizing that there may be permitting requirements and other factors that need to be considered, the Consumer Advocate urges that all long-lead steps that need to be taken to pursue this possibility quickly – if the need may eventually exist – should be taken in advance. The Consumer Advocate contends that taking these steps, instead of waiting too long and later determining that earlier steps should have been pursued, should be part of the contingency portfolio.

5. Load Shedding Schemes Should Be Updated.

After certain events on Oahu's grid, it came to the attention of the Company and regulators that the deployment of DER has affected the efficacy of old load shedding schemes so that, when they were needed, the load shedding did not provide the results that were expected. To that end, the last update that the Consumer Advocate received on these was more than a few years ago. While this should be a last resort, given the continued addition of energy efficiency and DER, it is important to understand what type

of system impact load shedding schemes might have for those instances when a short-term action may be necessary to avoid a long-term outage of Oahu's system.

B. ADDITIONAL INFORMATION ABOUT POSSIBLE INTERCONNECTION REMEDIES MAY BE NECESSARY.

As mentioned in recent position statements regarding potential remedies related to the Stage 1 projects that have been delayed, such as the Consumer Advocate's filing in Docket No. 2018-0413, the Consumer Advocate believes that additional information is necessary to better understand the contributing factors to the delays, both from the developers as well as the Hawaiian Electric Companies. After such information is available, potential solutions, if any, may be easier to identify with respect to how those projects might be brought closer to the original guaranteed commercial operational dates instead of the currently anticipated delayed operational dates.

As it pertains to the longer run, the Consumer Advocate offers that it has been proposing certain actions for a number of years that might help to expedite project timelines, reduce risks for developers, lower costs for customers, and mitigate concerns with community rejection of renewable energy projects. While all of those arguments will not be repeated here, the Consumer Advocate believes that future RFPs, whether for utility scale or DER, should include sites pre-identified and vetted. Further, especially when there are specific system needs, some portion of those needs should be specifically identified and made available as part of the bid process, which should reduce the costs incurred by developers to generate different proposals to meet vaguely defined target energy and capacity.

If the Companies make available utility-owned or controlled sites, including rooftops, that would be well-suited for renewable energy projects, the Consumer Advocate contends that this would expedite and facilitate future projects. The Consumer Advocate believes that pre-selecting sites should accommodate a range of project sizes and technologies, and establish agreements with those building/landowners prior to the RFP for projects. The selection of the sites should also involve a review and design of the most cost-effective interconnection options. Once those agreements with building/land owners have been reached, the Companies could perform the interconnection studies for a range of project sizes. A catalog of such sites, with the prescribed sizes and technologies and the already performed interconnection studies, could be made available as part of the RFP. To be clear, developers would not be restricted to such sites, however, the availability of such options could greatly streamline bid proposals, encourage greater competition, and reduce expected interconnection costs and project delays.

C. CUSTOMER OUTREACH AS PART OF CONTINGENCY PLANNING.

The Consumer Advocate also offers that plans around customer outreach and education should be considered and conducted well in advance of September 2022. As noted earlier, the termination of the AES Hawaii contract is not sudden or unexpected. Similarly, the likely impact of the termination of the AES Hawaii contract on customer bills and system reliability is not unexpected either. As the contingency planning continues, the Consumer Advocate believes that customer outreach may be an integral part of the planning since such outreach could improve the effectiveness of some of the

contingencies (e.g., critical peak pricing and the adoption of energy efficiency measures). Thus, the Consumer Advocate requests that the Commission include in its schedule sufficient time for customer education to ensure that customers understand the costs and benefits of the impending AES Hawaii retirement and the programs that may be offered so that the likelihood of high participation rates and successful programs might be increased.

III. SUMMARY.

The Consumer Advocate anticipates that there will be much attention and efforts dedicated to this and rightfully so. Once again, the Consumer Advocate emphasizes that it is important that increased contingency planning occur to mitigate – as much as possible and reasonable – the possibility of outages and/or rolling blackouts resulting from project delays. The Consumer Advocate also anticipates that this work will continue in this proceeding and other related proceedings but highlights the need to have these contingency plans defined and in place well in advance of the termination of AES Hawaii's contract. Furthermore, the Consumer Advocate is unable to identify specific measures that might help to accelerate some of the delayed GCODs for the Stage 1 projects but encourages the Commission to consider the Consumer Advocate's comments and recommendations made in the past as it relates to making PPAs more enforceable as

well as how to modify the RFP process, which would hopefully improve on the timeliness of the operational dates for future projects as well as other possible benefits.

DATED: Honolulu, Hawaii, March 25, 2021.

Respectfully submitted,

By /s/ Dean Nishina
DEAN NISHINA
Executive Director

DIVISION OF CONSUMER ADVOCACY

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **DIVISION OF CONSUMER ADVOCACY'S COMMENTS ON HAWAIIAN ELECTRIC'S INITIAL STATUS UPDATE FILED ON MARCH 5, 2021** was duly served upon the following parties electronically to the e-mail addresses below pursuant to HAR § 16-601-21(d), as modified by Order No. 37043 Setting Forth Public Utilities Commission Emergency Filing And Service Procedures Related To COVID-19, filed on March 13, 2020.

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DATED: Honolulu, Hawaii, March 25, 2021.

/s/ H. Amond

The foregoing document was electronically filed with the State of Hawaii Public Utilities Commission's Document Management System (DMS).